

Erasmus+ Experience Report

Institute Curie Paris

November 2019 – April 2020



The first time I went to Paris 10 years ago. I fell in love with this city and enjoyed every moment of my stay, never thinking that I will have a chance to live and work here one day as well.

This is my experience report about my Erasmus+ internship and I am glad to share with you my exciting experience and give you some tips if you come to Paris as well.

I study Pharmaceutical Sciences at LMU. During our Master studies, students should complete a research internship and most students choose to go aboard. This was also my case and I was sure that Paris is the city I want go to.

There were many reasons why this city attracted me the most Firstly, France is known for its progress in biological and pharmaceutical research. Secondly, I was very motivated to improve my French. Last but not least, I could not resist using this unique chance of immersing myself in the French culture and becoming a Parisienne for the next six months.

Before coming

Not the funniest but important part of going abroad is the organisation. I tried to list here the main points to be considered, but do not be scared, it is worth it! :)

Starting to look for an internship in advance is a key point, because it will last some time until you have all the documents (insurances, visa, etc.) and your final contract. Also note that it is better to write the applications in French. I sent my speculative applications as an exception in English because this is the main research language and was lucky to get a place in a research group at Institute Curie.

Finding accommodation is another main and sometimes difficult step, especially if you choose to go to a big city as Paris and to look for a room at distance. Unfortunately, Paris is full of fraudsters and their especially attractive announcements. What I suggest is avoiding popular websites like leboncoin.fr and pap.fr. Instead, try first applying to Cité Universitaire or ask your employer/supervisor for help. This is what worked in my case and I managed to find a room in a family house. When arrived, I immediately felt comfortable at my place, enjoying its central location (I lived in the 13^e arrondissement) and had a lovely stay with the French family, who helped me to improve my French and accepted me immediately as a member of their big and sweet family.

Just arrived

It is not only a cliché that not all French speak English. But if you speak a bit of French, they will be really proud of you and encourage speaking even more French, which was always very motivating for me! So I was glad to have been speaking a bit of French before coming to Paris and definitely improved my language level, even if at work my only working language was English (as a big exception due to our international team). If you are interested in some French classes, I recommend you the classes of Cité Universitaire or the ones provided by your employer. I took part in the French classes of Curie and was very happy with them. It was organised for PhDs and Postdocs and I felt very good in our small, young, and funny group.

What is also very confusing at the beginning is the transport of Paris. I will try to help you with some tips on my personal experience. If you prefer using public transport just rarely, buy a “carnet” of 10 single tickets. If you move a lot just for one day, use a daily ticket, which is also cheaper for young people during the weekend (“Jeunes weekend”). And if you use the metro on a daily basis, you should buy monthly a ticket for your personal Navigo card. In my case, half of the price of Navigo was even paid by my employer.

Also, if you can, try avoiding short metro trips and the biggest metro stations as Chatelet, because it will take you the double of time to change as planned;) Instead, enjoy Paris! Walk and look around, because this is how you discover new places, and this is what you will remember about the city. True Parisians love walking by every weather!

What is also possible is making a subscription for Velib, which is a big chain of bikes for rent. The simplest subscription allows you to enjoy short trips with mechanical

bikes, and if you pay just a bit more, electrical bikes are also at your disposal. However, be careful because Parisian traffic is always crazy and cycle paths are not common.

Now about sports. What I immediately noticed is that many Parisians love jogging. This is their main sports activity and if you are a sporty type just join all the people running through the city gardens. And if you prefer going to the gym and taking part in group sports classes, you have a big variety of fitness studios located all around.

Internship

Now I am coming to the most important part, my internship at Institute Curie. This place was the first choice for my internship because Institute Curie is a leading research centre which specifies in research fields as biology, biophysics, and medicine applied to cell biology and cancer. The institute has different buildings located in the 5^e arrondissement, also known as the Latin Quarter, and in Orsay, which is a bit outside of Paris to the south.

You can find out about the history of the institute in Curie's museum, located also in the Latin quarter next to the research buildings. The origin of the institute goes back to 1909, when Institute for Radium was created for Marie Curie, her husband Pierre Curie and their colleague Henri Becquerel to study the effects of radioactivity and its application in physics, chemistry, biology and medicine. The radioactivity itself was discovered a bit earlier also by Marie and Pierre Curie in 1898 by working with polonium and radium. In 1903, Marie Curie won her first Nobel Prize for physics together with her husband and in 1911 the second Nobel Prize for chemistry. Today, she remains the only woman to have won two Nobel Prizes. And it goes even beyond because Marie Curie's immediate family won five Nobel Prizes in total. Later, the institute was developed to study possible therapeutic applications of radioactivity and became the Institute Curie as known today. It is interesting to visit these days the museum and have a look at the still existing laboratories, where Marie worked with dangerous substances. By the time of the discovery of radioactivity, it was not well known how damaging could it be for a human being. Marie Curie worked with radium without any protection and this sadly caused her deaths at the age of 66. An interesting fact: even today the laboratory itself and the garden next to it have higher radiation rates.

From the very first day, I was warmly welcomed by the lab and felt very comfortable while working there. The lab was big and had about 15 members, which were divided into three teams. I was supervised by one of the team leaders and she proposed me to continue an interesting cell biology project from a former PhD student. Thanks to the support of my supervisor and other members of the team, I could learn many different biomolecular and biochemical methods and reach some interesting results. I loved the location of the institute and was excited about seeing Pantheon from the windows of my lab. I had my desk in the office and my own bench in the lab. The working day had about 8 hours but depending on the experiments varied sometimes and I was flexible to organise my schedule.

Talking a bit more scientifically, the aim of my project was to have a look at the correlation between different molecular motors and organelle positioning. Molecular motors are special agents responsible for moving different structures inside the cell. I

was interested in proteins kinesin 1 and dynein, both known for moving along the microtubules. What we wanted to do was to decrease the activity of these proteins and see what would happen inside the cell. So, we used different well-known techniques, such as Crispr-Cas9 knock out and silencing with siRNA. The cells we choose for manipulation were RPE-1 cells (retinal pigment epithelium cells) knows for their easy handling in cell culture. After we treated the cells, we used immunofluorescence microscopy to quantify the results of our experiments. Additionally, we did some Western Blotting, a biochemical technique which allows looking at proteins. We could observe that kinesin 1 and dynein decreased levels have various interesting effects in the cell. Our results were preliminary, and we would need more time for some significant conclusions. Due to Covid19 and the lockdown, I sadly could not finish everything we planned. But I can say for sure that I learned a lot during my stay at Paris, both theoretically and practically, and enjoyed endlessly having my own small research project.

Additionally, I had a chance to participate in a Fiji ImageJ course. This software is widely used in biological research to analyse microscope images. Thanks to the 3-day course, I learned how Fiji works and could use it for my experiments.

I was also lucky to have had a possibility to participate in the retreat of the unit. For 4 days, we spent time together in a spacious resort complex next to Angers. Between different scientific talks and poster sessions, we had fun by doing yoga, partying with colleagues, playing ping pong and even participating in a giant escape game. This was a fantastic opportunity to unite the colleagues, present to each other the scientific work and to make new friends.

Life in Paris

I arrived in Paris in November and was surprised by the huge amount of rainy days in winter. However, Paris is THE city of how to have fun by rain. Did you know that the capital of France has around 130 museums? Well, now you know. And this number of places to visit does not include the huge amount of temporary expositions, theatres, opera, cinema, restaurants, cafés, and bars.

My favourite museum is absolutely Musée d'Orsay. I am in love with Impressionism and just in the last year visited the museum three times. If I would be still in Paris, you would probably find me there standing in front of the artworks of Monet and Van Gogh. But I really recommend you to visit the other museums in Paris too. Go to Louvre and immerse yourself in its endless beauty (make multiple small visits to make it easier!), visit the Musée Rodin, Musée Dali, and Musée des Arts décoratifs. Also always have a look at the temporary exhibitions. I had a fantastic chance to visit the exhibition of Leonardo da Vinci and could see his original books with unique mirrored writing.

Of course, visit the stunning opera house, go to the top of Arc de Triomphe, explore Panthéon, visit Sacre Coeur, pass absolutely by Sainte-Chapelle and (if you are more a touristic type :)) take the elevator to the last floor of Tour Eiffel or make a tour in the Palace of Versailles. I did not mention Notre Dame because it has been one year now

that the cathedral is closed after a fire, but hopefully, we will be able to admire its architecture soon again.

And when the sun is shining, you will see all the Parisians sitting with a bottle of wine and a fresh baguette at Seine. Someone missing? The rest is in the Luxembourg Garten, throwing the shoes on the ground and putting the feet on the second chair behind. And of course, what I also love about Paris is just walking around. The 16^e arrondissement is considered the most beautiful in terms of the architecture. But I would not miss the chance of going again to Marais to see all its cute shops or to Montmartre with talented artists drawing on the square.

But maybe you are a true gourmand, in this case, you will find here your small paradise. The restaurants, cafés, and bars for all the tastes are located everywhere. Enjoy the variety of cheese and wines, boeuf bourguignon, go to Ladurée for some delicious macarons or just order a hot chocolate in a cosy café. Just a small tip: use the App “La Fourchette” to make your restaurant visits a bit cheaper. Also, never order a “baguette” at the bakery. Instead, order “La tradition”! This is the bread Parisians adore and it will be sold to you still warm and crunchy even in the evening.

During your stay abroad, it is important to make new friends, which is much simpler as you could imagine. You should just check the Erasmus events around and will find an unlimited number of parties, walking tours, museum visits or board games evenings every day. I joined the ESN network and was involved in many fantastic international events. It was funny to speak all the languages I know at the same time! Additionally, Erasmus networks organize some trips beyond Paris, for example to the stunning castles of the Loire valley.

The other side

Like every big city, Paris is sadly also known for criminals, especially pickpocketing. Unfortunately, I knew very few people who never had their phone stolen in Paris and had always my hand on my bag.

What also happened during my stay are the well-known Gilets jaunes protests in combination with never-ending public transport protests against the pension reforms, which lasted more than a month. I was relieved when the transport worked again.

Finally, I sadly had to finish my internship in Paris earlier because of Covid19. After 4,5 months, I had to return to Munich and spent the resting time in home office. And this is the moment when I am now writing to you, sitting again in my room in Munich but having my thoughts still far away in Paris. Hopefully, the current health situation will get better soon and you, my dear reader, will be able to experience the same unforgettable and amazing stay abroad as I did :)